

In the Claims

Claims 1-8. (Previously canceled)

Claim 9. (Previously amended) A recombinant enzyme capable of hydrolyzing at least one organophosphate selected from the group consisting of carboxylester organophosphates and dimethyl-oxon organophosphates, wherein the recombinant enzyme has at least about 75% sequence identity with SEQ ID NO.8 and differs from SEQ ID NO. 8 at least in the substitution of Trp at position 251 with an amino acid selected from the group consisting of Leu, Ser, Ala, Ile, Val, Thr, Cys, Met and Gly.

Claims 10-12. (Previously withdrawn)

Claim 13. (Previously canceled)

Claim 14. (Currently amended) The recombinant enzyme according to claim 9, wherein the DNA molecule encoding the recombinant enzyme has at least 80% homology with SEQ ID NO. 7

Claim 15. (Currently amended) The recombinant enzyme according to claim 9, wherein the DNA molecule encoding the recombinant enzyme has at least 95% homology with SEQ ID NO. 7.

Claim 16. (Currently amended) The recombinant enzyme according to claim 9, wherein the DNA molecule encoding the recombinant enzyme has the nucleotide sequence of SEQ ID NO:1, 3, or 5, or a sequence which hybridizes under high stringency conditions to SEQ ID NO. 1, 3 or 5, with the proviso that the recombinant enzyme encoded by the DNA molecule differs from SEQ ID NO. 8 at least in the substitution of Trp at position 251 with an amino acid selected from the group consisting of Leu, Ser, Ala, Ile, Val, Thr, Cys, Met and Gly.

Claim 17. (Currently amended) The recombinant enzyme according to claim 9, wherein said Trp at position 251 is substituted with Leu or Ser.

Claim 18. (Currently amended) A recombinant enzyme capable of hydrolyzing at least one organophosphate selected from the group consisting of carboxylester organophosphates and dimethyl-oxon organophosphates, wherein the recombinant enzyme has the amino acid sequence of SEQ ID NO. 10 or the amino acid sequence of SEQ ID NO. 13 in which Trp at position 251 is replaced with Ser.

Claims 19-29. (Previously withdrawn)